

## Partial Library of Occupational Health & Safety Gases

for use with Model DX4040, DX4030 (or DX-4015) FTIR multi-component Gas Analyzers

Prepared: Jan 2013

CAS No.	Gas Name	Chemical Formula	Range (ppm) <sup>1</sup>	Limit (ppm) <sup>2</sup>	OEL's <sup>3</sup>		
					TWA	STEL	Ceiling
75-07-0	Acetaldehyde	C <sub>2</sub> H <sub>4</sub> O	0 - 200	0.13	200		
64-19-7	Acetic Acid	CH <sub>3</sub> COOH	0 - 100	0.04	10		
67-64-1	Acetone	CH <sub>3</sub> COCH <sub>3</sub>	0 - 200	0.07	500	750	
107-02-8	Acrolein	C <sub>3</sub> H <sub>4</sub> O	0 - 200	0.25	0.1		
107-13-1	Acrylonitrile	C <sub>3</sub> H <sub>3</sub> N	0 - 200	0.35	2	10	
7664-41-7	Ammonia	NH <sub>3</sub>	0 - 50	0.13	25	35	
62-53-3	Aniline	C <sub>6</sub> H <sub>7</sub> N	0 - 50	0.06	5		
7784-42-1	Arsine	AsH <sub>3</sub>	0 - 50	0.02	0.05		
71-43-2	Benzene	C <sub>6</sub> H <sub>6</sub>	0 - 50	0.13	1	5	25
10294-34-5	Boron Trichloride	BCl <sub>3</sub>	0 - 50	0.01			1
106-99-0	Butadiene-1,3	C <sub>4</sub> H <sub>6</sub>	0 - 200	0.20	1	5	
124-38-9	Carbon Dioxide	CO <sub>2</sub>	0 - 2000	<20	5000		
75-15-0	Carbon Disulphide	CS <sub>2</sub>	0 - 100	0.17	20	30	
630-08-0	Carbon Monoxide	CO	0 - 200	0.25	50	200	
67-66-3	Chloroform	CHCl <sub>3</sub>	0 - 100	0.04			50
76-06-2	Chloropicrin	CCl <sub>3</sub> NO <sub>2</sub>	0 - 20	0.08	0.1		
1319-77-3	Cresol-m	C <sub>7</sub> H <sub>8</sub> O	0 - 50	0.06	5		
98-82-8	Cumene	C <sub>9</sub> H <sub>12</sub>	0 - 500	0.05	50		
110-82-7	Cyclohexane	C <sub>6</sub> H <sub>12</sub>	0 - 50	0.01	300		
57041-67-5	Desflurane (Suprane)	C <sub>3</sub> H <sub>2</sub> F <sub>6</sub> O	0 - 50	0.005			
75-35-4	Dichloroethane-1,1	C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	0 - 200	0.30	100		
156-59-2	Dichloroethene-cis	C <sub>2</sub> H <sub>2</sub> Cl <sub>2</sub>	0 - 200	0.14			
95-50-1	Dichlorobenzene-o	C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	0 - 100	0.20			50
106-46-7	Dichlorobenzene-p	C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	0 - 200	0.68	75		
109-89-7	Diethylamine	C <sub>4</sub> H <sub>11</sub> N	0 - 200	0.06	25		
60-29-7	Diethyl ether	C <sub>2</sub> H <sub>5</sub> OC <sub>2</sub> H <sub>5</sub>	0 - 50	0.02	400		
127-19-5	Dimethylacetamide	C <sub>4</sub> H <sub>9</sub> NO	0 - 100	0.02	10		
124-40-3	Dimethylamine	C <sub>2</sub> H <sub>7</sub> N	0 - 100	0.09	10		
68-12-2	Dimethylformamide	C <sub>3</sub> H <sub>7</sub> NO	0 - 100	0.10	10		
123-91-1	Dioxane	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	0 - 200	0.03	100		
13838-16-9	Enflurane	C <sub>3</sub> H <sub>2</sub> ClF <sub>5</sub> O	0 - 20	0.01			
64-17-5	Ethanol	CH <sub>3</sub> CH <sub>2</sub> OH	0 - 200	0.20	1000		
141-43-5	Ethanolamine	C <sub>2</sub> H <sub>7</sub> NO	0 - 200	0.14	3		
141-78-6	Ethyl acetate	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	0 - 50	0.01	400		
100-41-4	Ethyl Benzene	C <sub>8</sub> H <sub>10</sub>	0 - 100	0.08	100		
75-00-3	Ethyl chloride	C <sub>2</sub> H <sub>5</sub> Cl	0 - 200	0.21	1000		

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75-21-8	Ethylene Oxide (EtO)	C <sub>2</sub> H <sub>4</sub> O	0 - 50	0.17	1	5	
50-00-0	Formaldehyde	CH <sub>2</sub> O	0 - 50	0.09	0.75	2	
64-18-6	Formic Acid	HCOOH	0 - 100	0.03	5		
76-13-1	Freon 113 (CFC-113)	C <sub>2</sub> F <sub>3</sub> Cl <sub>3</sub>	0 - 50	0.02	1000	1250	
76-14-2	Freon 114 (CFC-114)	C <sub>2</sub> F <sub>4</sub> Cl <sub>2</sub>	0 - 50	0.01			
75-71-8	Freon 12 (CFC-12)	CCl <sub>2</sub> F <sub>2</sub>	0 - 50	0.02	1000		
811-97-2	Freon 134a (HFC-134A)	C <sub>2</sub> H <sub>2</sub> F <sub>4</sub>	0 - 50	0.01			
1717-00-6	Freon 141b	C <sub>2</sub> H <sub>3</sub> FCl <sub>2</sub>	0 - 50	0.07	1000	1250	
75-45-6	Freon 22 (HCFC-22)	CHClF <sub>2</sub>	0 - 50	0.01			
111-30-8	Glutaraldehyde	C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	0 - 20	0.04	0.2		
151-67-7	Halothane	C <sub>2</sub> HBrClF <sub>3</sub>	0 - 50	0.01			
302-01-2	Hydrazine	N <sub>2</sub> H <sub>4</sub>	0 - 100		1		
7647-01-0	Hydrogen Chloride	HCl	0 - 50	0.20			5
74-90-8	Hydrogen Cyanide	HCN	0 - 50	0.35			5
7664-39-3	Hydrogen Fluoride	HF	0 - 50	0.30	3		
7722-84-1	Hydrogen Peroxide	H <sub>2</sub> O <sub>2</sub>	0 - 20		1		
78-83-1	Iso-Butyl Alcohol	C <sub>4</sub> H <sub>10</sub> O	0 - 100	0.05	100		
67-63-0	Iso-Propyl Alcohol (IPA)	C <sub>3</sub> H <sub>8</sub> O	0 - 100	0.06	400	500	
74-82-8	Methane	CH <sub>4</sub>	0 - 100	0.11			
67-56-1	Methanol	CH <sub>3</sub> OH	0 - 500	0.13	200		
79-20-9	Methyl acetate	C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	0 - 100	0.01	200		
74-83-9	Methyl bromide	CH <sub>3</sub> Br	0 - 50	0.40	5		20
109-86-4	Methyl cellosolve	C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	0 - 100	0.05	25		
110-49-6	Methyl cellosolve acetate	CH <sub>3</sub> COOCH <sub>2</sub> CH <sub>2</sub> OCH <sub>3</sub>	0 - 100	0.01	25		
71-55-6	Methyl chloroform (TCE)	C <sub>2</sub> H <sub>3</sub> Cl <sub>3</sub> or CH <sub>3</sub> CCl <sub>3</sub>	0 - 100	0.07	350		
78-93-3	Methyl Ethyl Ketone	CH <sub>3</sub> COC <sub>2</sub> H <sub>5</sub>	0 - 200	0.14	200	300	
80-62-6	Methyl Methacrylate	C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	0 - 50	0.02	100		
75-09-2	Methylene chloride	C <sub>2</sub> H <sub>2</sub> Cl <sub>2</sub>	0 - 200	0.10	25	125	
74-89-5	Methylamine	CH <sub>5</sub> N	0 - 200	0.22	10		
74-93-1	Methylmercaptan	CH <sub>4</sub> S	0 - 200	0.41			10
10102-44-0	Nitrogen Dioxide	NO <sub>2</sub>	0 - 50	0.37			5
7783-54-2	Nitrogen Trifluoride	NF <sub>3</sub>	0 - 50	0.02	10		
10024-97-2	Nitrous Oxide	N <sub>2</sub> O	0 - 100	0.02	25		
75-44-5	Phosgene	CCl <sub>2</sub> O	0 - 50	0.02	0.1		
7803-51-2	Phosphine	PH <sub>3</sub>	0 - 50	0.20	0.3		

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71-23-8	Propanol	C <sub>3</sub> H <sub>8</sub> O	0 - 100	0.08	200		
75-56-9	Propylene Oxide	C <sub>3</sub> H <sub>6</sub> O	0 - 100	0.12	20		
110-86-1	Pyridine	C <sub>5</sub> H <sub>5</sub> N	0 - 200	0.36	5		
28523-86-6	Sevoflurane	C <sub>4</sub> H <sub>3</sub> F <sub>7</sub> O	0 - 50	0.01			
100-42-5	Styrene	C <sub>8</sub> H <sub>8</sub>	0 - 200	0.16	100		
2699-79-8	Sulfuryl Fluoride	SO <sub>2</sub> F <sub>2</sub>	0 - 50	0.03	5		
05/09/7446	Sulphur Dioxide	SO <sub>2</sub>	0 - 100	0.03	2	5	
2551-62-4	Sulphur Hexafluoride	SF <sub>6</sub>	0 - 50	0.004			
127-18-4	Tetrachloroethylene (Perc)	C <sub>2</sub> Cl <sub>4</sub>	0 - 50	0.03	100		
109-99-9	Tetrahydrofuran	C <sub>4</sub> H <sub>8</sub> O	0 - 100	0.07	200		
108-88-3	Toluene	C <sub>7</sub> H <sub>8</sub> (C <sub>6</sub> H <sub>5</sub> CH <sub>3</sub> )	0 - 200	0.13	200		
79-01-6	Trichloroethylene	C <sub>2</sub> HCl <sub>3</sub>	0 - 100	0.08	100		
526-73-8	Trimethylbenzene (1,2,3)	C <sub>9</sub> H <sub>12</sub>	0 - 100	0.10	25		
108-05-4	Vinyl acetate	C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	0 - 50	0.01	10	15	
75-01-4	Vinyl chloride	CH <sub>2</sub> CHCl	0 - 200	0.34	1	5	
75-35-4	Vinylidene chloride	C <sub>2</sub> H <sub>2</sub> Cl <sub>2</sub>	0 - 100	0.12	5	20	
7732-18-5	Water Vapour	H <sub>2</sub> O	0 - 3 %	<100			
106-42-3	Xylene-p	C <sub>8</sub> H <sub>10</sub>	0 - 100	0.10	100	150	

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Notes :

1. Measurement range - Typical recommended range however can be modified for site specific conditions
  2. Theoretical Lower Limit Detection based on 60s measurement time, one component in Nitrogen, detection limit defined as 3x stdev(noise)
  3. OEL's : Occupational Exposure Limits - Data per OSHA or NIOSH or ACGIH
  4. Detection limits in general are application specific and this list should only be used as a guide.
- We strongly recommend that you contact Gasmeter or your local representative to verify instrument performance for your specific application.

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